

## **DETAILED ACTION**

This office action is in response to the amendment filed 3/25/10. Claim 5 is cancelled. Claims 1 – 4 and 6 - 35 are now pending.

### ***Terminal Disclaimer***

The terminal disclaimer filed on 5/21/10 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US 2007/0138064 has been reviewed and is accepted. The terminal disclaimer has been recorded.

## **REASONS FOR ALLOWANCE**

Claims 1 – 4 and 6 – 35 are allowed.

The following is an examiner's statement of reasons for allowance:

The present claims are allowable over the closest reference of FERAUDY (US 6,460,788).

Applicant claims:

Method for selective separation of each of the constituents of a mixture of synthetic organic materials that are polymers and/or copolymers, intended to be upgraded by recycling, having a density of at least 1, in fragmented form, comprising carrying out their separation by introducing said mixture into a dense liquid medium, which is an aqueous suspension of powder particles dispersed in an adequate amount in an aqueous phase, in order to create a density level chosen as the threshold for

Art Unit: 1796

separation of the various fragmented synthetic organic materials to be selectively separated by type, wherein said separating suspension is made selective, stable and invariant with regard to density at a precision level of +0.0005 with respect to the density level threshold chosen for the selective separation:

- a) by the size selection of powder particles having a granulometric cross-section of no more than 5 micrometer, which solid powder particles thus sized are dispersed and present in an aqueous phase in a sufficient amount to reach the chosen density level threshold, and
- b) by the implementation of at least one means of dynamic stabilization by creating a circulating flow of said separating suspension, which circulating flow is at most 40 m<sup>3</sup>/h.

FERAUDY discloses a method of separating a mixture of polymers derived from waste using a density separation technique. The density separation is done in a liquid medium. The density of the polymers ranges from below 1 to 1.25. The separative suspension is formed from

- (a) solid powder particles and
- (b) dynamic stabilization by creating a circulating flow.

FERAUDY fails to teach the size of the solid powder particles. FERAUDY discloses density measurements of 1.25, 1.18, 1.15, 1.10 and 1.05, showing a precision in the +/- 0.005 range, failing to teach a precision of +/- 0.0005. FERAUDY is silent regarding the speed of the circulating flow.

No prior art teaches or fairly suggests the claimed method disclosed above wherein Applicant shows unexpected results when the circulating flow is at most 40 m<sup>3</sup>/h and the solid particle size is below 5 micrometer, which allows more precision in controlling the density differential wherein a precision of +/- 0.0005 is achieved.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRANCES TISCHLER whose telephone number is (571)270-5458. The examiner can normally be reached on Monday-Friday 7:30AM - 5:00 PM; off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ling-Siu Choi/  
Primary Examiner, Art Unit 1796

Frances Tischler  
Examiner  
Art Unit 1796

/FT/